

REMARKS

This Application has been carefully reviewed in light of the Office Action mailed April 22, 2004. Claims 1-28 are pending in the present application. The Examiner rejected Claims 4, 5, 17, and 18.

Section 101 Rejections

The Examiner rejects Claims 1-28 under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. The patent laws define patentable subject matter as "any new and useful process, machine, manufacture or composition of matter, or any new and useful improvement thereto." *See* 35 U.S.C. § 101. When an abstract idea is reduced to a practical application, the abstract idea no longer stands alone if the practical application of the abstract idea produces a useful, concrete, and tangible result. This then satisfies the requirements of 35 U.S.C. § 101. *See In re Alappat*, 33 F.3d 1526, 1544, 31 U.S.P.Q. 2d 1545, 1557 (Fed. Cir. 1994); *see also State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 1373, 47 U.S.P.Q. 2d 1596, 1601-02 (Fed. Cir. 1998). While an abstract idea by itself may not satisfy the requirements of 35 U.S.C. § 101, an abstract idea when practically applied to produce a useful, concrete, and tangible result satisfies 35 U.S.C. § 101. *See AT&T Corp. v. Excel Comm. Inc.*, 172 F.3d 1352, 1357, 50 U.S.P.Q. 1447, 1452 (Fed. Cir. 1999) (stating that as technology progressed, the CCPA overturned some of the earlier limiting principles regarding 35 U.S.C. § 101 and announced more expansive principles formulated with computer technology in mind); *see also In re Musgrave*, 431 F.2d 882, 167 U.S.P.Q. 280 (CCPA 1970) (cited by the Federal Circuit in *AT&T Corp.*, 172 F.3d at 1356). Thus, producing a useful, concrete, and tangible result is the key to patentability according to *State Street* and other applicable case law.

"Only when the claim is devoid of any limitation to a practical application in the technological arts should it be rejected under 35 U.S.C. 101." M.P.E.P. § 2106. Indeed, a method or process remains statutory even if some or all of the steps therein can be performed in the human mind, with the aid of the human mind, or because it may be necessary for one performing the method or process to think. *See In re Musgrave*, 431 F.2d at 893, 167 U.S.P.Q. at 289. As stated by the Federal Circuit in *State Street* and as explicitly confirmed in the M.P.E.P., "[T]ransformation of data, representing discrete dollar amounts, by a machine through

a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces 'a useful, concrete, and tangible result' -- a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades." *State Street*, 149 F.3d at 1373, 47 U.S.P.Q. 2d at 1601-02; M.P.E.P. § 2106.

In an effort to expedite the present case to issuance, Applicant has amended independent Claims 1, 14, 27 and 28 to make it more clear that these claims are directed to computer-implemented methods or systems that produce a useful, concrete, and tangible result, and are therefore directed to patentable subject matter.

As an example, independent Claim 1 is directed to a "computer-implemented method for detecting and resolving conflicts in association with a data allocation." As recited in Claim 1, positions in a hierarchical organization of data are added to and/or removed from a "set of conflict-free positions" as the steps of the method are performed. As is indicated in amended Claim 1, the set of conflict-free positions determined according to the recited method is "for use in detecting and resolving conflicts in an allocation of data between a plurality of the positions in the hierarchical organization of data." Therefore, the method recited in Claim 1 produces a useful, concrete, and tangible result (the set of conflict-free positions) that may be used for a practical application (detecting and resolving conflicts in an allocation of data between a plurality of the positions in the hierarchical organization of data).

Independent Claims 14, 27, and 28 recite similar, although not identical limitations, and thus recite patentable subject matter for the same reasons given above for Claim 1. Therefore, Applicant respectfully requests reconsideration and allowance of independent Claims 1, 14, 27 and 28, as well as the claims that depend from these independent claims.

### **Section 112 Rejections**

The Examiner rejects independent Claims 1, 14, 27, and 28 (and the claims that depend from these independent claims) because the body of each of these claims is silent on the steps or components that serve the purpose identified in the preamble of each claim. Although Applicant believes that the body of the claims as originally filed support the purpose stated in the preamble, Applicant has amended the last limitation of each of independent Claims 1, 14,

27, and 28 to further particularly point out and distinctly claim the subject matter which the Applicant regards as his invention.

Furthermore, the Examiner also rejects the majority of the claims as either having limitations without antecedent basis or depending from a claim with such limitations. Applicants have amended the claims to address the antecedent basis issues described by the Examiner.

For the above reasons, Applicant respectfully requests reconsideration and allowance of Claim 1-28 of the present application.

### **Section 102 Rejections**

The Examiner rejects Claims 1-3, 6-16, and 19-26 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Publication Number No. U.S. 2003/0046300 A1 to Arai (hereinafter "*Arai*").

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987); MPEP § 2131. In addition, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claims" and "[t]he elements must be arranged as required by the claim." *Richardson v. Suzuki Motor Co.*, 9 USPQ 2d 1913, 1920 (Fed. Cir. 1989); *In re Bond*, 15 USPQ 2d 1566 (Fed. Cir. 1990); MPEP § 2131 (*emphasis added*).

*Arai* does not meet these requirements. It simply discloses a method for generating and displaying a representation of a hierarchical structure containing hierarchical relationships between parents and children. (Abstract). Although the Examiner states that Figure 2 and its corresponding text disclose each and every limitation of Claims 1, 14, 27 and 28, this text only describes a process for analyzing the contents of a hierarchical structure to be able to generate and display a representation of the hierarchical structure. Neither this figure and text nor any other portion of *Arai* discloses any type of detection or resolution of conflicts in a allocation of data in such a hierarchical structure, and they certainly do not disclose any of the specific limitations of Claims 1, 14, 27 and 28 (nor has the Examiner pointed out how this reference

discloses these limitations). Furthermore, *Arai* also does not disclose each and every limitation of the claims that depend from these independent claims (nor has the Examiner pointed out how this reference discloses these limitations). Therefore, Applicants respectfully request reconsideration and allowance of Claims 1-28.

**Allowable Subject Matter**

Applicant notes with appreciation the Examiner's indication that Claims 4-5 and 17-18 would be allowable if rewritten in independent form including all of the limitations of their base claim and any intervening claims. However, Applicant has not rewritten these claims at this time because Applicant believes that Claims 1 and 14, from which these claims depend, are in condition for allowance.

**CONCLUSION**

Applicant has made an earnest attempt to place this application in condition for allowance. For the foregoing reasons, and for other reasons clearly apparent, Applicant respectfully requests reconsideration and full allowance of all pending claims.

If the Examiner feels that a telephone conference would advance prosecution of this application in any manner, the Examiner is invited to contact Brian W. Oaks, Attorney for Applicant, at the Examiner's convenience at (214) 953-6986.

Applicant believes no fees are due; however, the Commissioner is hereby authorized to charge any fee and credit any overpayment to Deposit Account No. 02-0384 of Baker Botts, L.L.P.

Respectfully submitted,

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